# Lipsett Lake Comprehensive Fishery Survey, Burnett County, Wisconsin

2016 - 2017

WBIC Lipsett Lake – 2678100


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## Executive Summary

A comprehensive survey of Lipsett Lake, Burnett County, was conducted during the 2016 sampling season. The primary objective of this study focused on assessing the status of gamefish and panfish populations in Lipsett Lake.

Gamefish collected included walleye, northern pike, muskellunge, and largemouth bass. Data was also collected on panfish. The walleye population was 0.3 fish/acre which was similar to 2013. Northern pike catch was similar to previous surveys at 2.1/net night. Muskellunge are low density, with only eight adults collected. The largemouth bass population dropped by 1.5 fish/acre since 2013. Black crappie averaged 8.6 in and bluegill averaged 5.6 in and both are similar to previous surveys.

Summary and management recommendations include: 1) Walleye are very low density in Lipsett Lake and sustained solely by stocking. 2) Northern pike densities are stable and no regulation change is needed. 3) Muskellunge are low density in Lipsett, changes to the stocking quotas should be considered after the next muskellunge survey. 4) Largemouth bass densities dropped since the last survey, the no minimum regulation should continue and be evaluated in future assessments. 6) Bluegill and black crappie provide a good option for anglers. Future evaluations should monitor impacts of a liberalized bass limit on the panfish population. 8) Preventing the establishment of new invasive species and monitoring of established invasive species should continue. 9) Habitat preservation/reestablishment should be encouraged.

## Introduction

Lipsett Lake is a 393 acre drainage lake in the Yellow River sub-basin of the St. Croix River drainage in Burnett County. Lipsett Lake's main inlet is an unnamed tributary on the northeast corner and main outlet is another unnamed tributary which flows from the western side of Lipsett into Rice Lake. Lipsett Lake is classified as a complex warm-clear waterbody, complex meaning it has more than three species of gamefish and warm-clear referring to the water quality based on seasonal temperatures and water clarity (Wisconsin Department of Natural Resources (WDNR) research unpublished data). The lake's water clarity is transitional between a clear and turbid lake (WDNR research unpublished data).

Trophic state index (TSI) is an index for evaluating the trophic state or nutrient condition of lake (Carlson 1977; Lillie et al. 1993). Lipsett Lake is considered a eutrophic or productive lake according to its TSI index (WDNR 2016). Lipsett Lake's substrate is mostly sand and muck with areas of heavy vegetation.

Lipsett Lake's fishery consists of these gamefish: northern pike *Esox lucius*, largemouth bass *Micropterus salmoides*, smallmouth bass *Micropterus dolomieu*, walleye *Sander vitreus*, and muskellunge *E. masquinongi*. Panfish present include: bluegill *Lepomis macrochirus*, black crappie *Pomoxis negromaculatus*, yellow perch *Perca flavescens*, rock bass *Ambloplites rupestris*, and pumpkinseed *L. gibbosus*. Common forage and non-game species include: bowfin *Amia calva*, white sucker *Catostomus commersoni*, Spottail shiner *Notropis hudsonius*, and brook silverside *Labidesthes sicculus*. Invasive species include: Chinese mystery snail *Bellamy chinensis*, curly-leaf pondweed *Potamogeton crispus*, and common carp *Cyprinus carpio.*

Angling regulations have generally followed statewide changes to gamefish and panfish regulations. Largemouth and smallmouth bass length limits were changed from a 14 inch (in) minimum length to no minimum length limit in 2012. Walleye length limits recently changed in

the Ceded Territory from a 15 in minimum to 15 in to 20 in may be kept and only one fish over 24 in in 2015. For bag limits, Lipsett is in the Ceded Territory and is subject to tribal harvest, which means it was managed with a sliding bag system since 1985. From 1985 until 2014, the walleye daily bag limits varied from two to five fish. In 2015, a fixed three fish daily bag limit was put into place. All other species currently follow the statewide or regional size and bag limits (Table 1).

Fisheries management by Wisconsin Department of Natural Resources (WDNR) has consisted of fish surveys and stocking. Stocking efforts have mainly been focused on walleye and more recently muskellunge. WDNR and the St Croix tribe have stocked a mixture of small fingerling and large fingerling walleye over the past 30 years (Appendix Table 1). Muskellunge have only been stocked since 2002 and are stocked by WDNR biennially (Appendix Table 1).

There have been numerous fish surveys on Lipsett Lake. Recently, the lake has been a WDNR Treaty trend lake and has received a walleye population estimate, creel survey, and fall walleye recruitment survey triennially since 2004. Other surveys have focused on assessing northern pike, largemouth bass, and panfish in the lake. The 2016 survey was a joint effort by WDNR Spooner Fisheries Management and Treaty Assessment. The main survey objectives were to assess the walleye, muskellunge, and largemouth bass populations. Secondary objectives were to assess the northern pike and panfish populations. An ice creel survey was used to assess winter fishing pressure (we had to cancel the open water creel survey due to hiring circumstances).

## Methods

### *Field Sampling*

Spring sampling started in late March following WDNR lake sampling protocol (Simonson et al. 2008, Hennessy 2002). Northern pike and walleye sampling consisted of fyke-net sampling. After ice-out, fyke nets (4 x 6 ft frame) were set on 25 March. Nets were placed on shorelines favorable for walleye and northern pike spawning. Eight nets were fished until 31 March for a total of 48 net nights. A recapture electrofishing run for walleye took place 31 March and the entire shoreline was sampled. Data was also collected on muskellunge during this timeframe.

Following early spring sampling, nets were reset to capture a sample of muskellunge. This sampling took place from 12 April to 21 April for a total of 45 net nights. A sample of black crappie was taken on 13 April and 14 April. A bluegill sample was taken on 18 April for aging purposes.

A largemouth bass population estimate was also conducted in 2016. All bass captured during spring fyke netting and the walleye recapture run were marked. Additional daytime electrofishing was conducted on 11, 18, 19, and 23 May to increase the number of marked fish at large. A night electrofishing recapture was conducted on 24 May where largemouth bass were sampled over four miles of shoreline. In addition to bass, panfish were collected in two, 1/2 mile index stations.

A fall walleye recruitment survey took place 19 September. Sampling occurred once water temperatures had dropped below 65 F following WDNR treaty protocols (Hennessy 2002). Walleye less than 12.0 in were collected in the survey.

### *Age and Statistical Analysis*

Scales were removed from walleye and largemouth bass less than 12 in, while dorsal spines were removed from larger walleye and largemouth bass. Scales were removed from bluegill. Age interpretations on northern pike and muskellunge were not conducted due to the unreliability and difficulty of determining annuli. Casselman (1990) found this to be due to irregular growth and resorption or erosion on the midlateral region.

Size structure quality of each species sampled was determined using the proportional stock densities (PSD) index (Neumann et al. 2013). The PSD value for a species is the number of fish of a specified length and longer divided by the number of fish of stock length or longer, the result multiplied by 100. Catch per Unit Effort (CPE) was calculated as the number of fish captured divided by the appropriate unit of sampling effort for that species.

### *Ice Creel Survey*

An ice creel survey was conducted on Lipsett Lake from 1 December 2016 to 5 March 2017. Due to hiring circumstances, no creel clerk was available for the open water sampling period in 2016; therefore that data was not collected. The ice creel survey used a random stratified roving access design (Beard et al. 1997). Angler directed effort (hrs), catch, harvest, and mean length of harvested fish was collected during the surveys.

## Results

### *Spring Fyke-Netting and Electrofishing*

*Walleye*. The 2016 walleye population was estimated at 111 fish (Coefficient of Variation (CV) = 0.19) or 0.3 fish/acre. The population was similar to 2013 (0.2 fish/acre), but has generally been decreasing since 2004 (Table 2). This adult walleye density was lower than the Ceded Territory average for lakes that are sustained by stocking (1.3 fish/acre in Cichosz 2016). A total

of 68 adult walleye were captured during netting and electrofishing. The 2016 walleye catch rate was similar to recent surveys (Table 3).

Adult walleye ranged in length from 11.2 to 27.7 in (Figure 1). The 2016 size structure was similar to previous surveys (Figure 2). Mean length of male and female walleye was 17.9 in (standard deviation (SD) = 2.3) and 22.2.in (SD = 3.0), respectively. Overall average length was 19.8 in (SD = 3.6), which is higher than 2013 (17.5 in avg.). Both male and female adult walleye grew faster than the Northwestern averages for walleye (Figure 3 & 4). Due to low sample size, PSD was not calculated for adult walleye.

*Northern Pike.* A total of 99 northern pike were captured using fyke-nets. They ranged in length from 12.5 to 32.0 in (Figure 5). Mean lengths of male and female northern pike was 18.7 in (SD= 2.8) and 22.1 (SD=4.5), respectively. Catch rates were similar for northern pike in 2016 (2.1 fish/net-night) when compared with 2013 (1.9 fish/net-night) and 2010 (1.9 fish/net-night). PSD and PSD-28 was 38 and 4, respectively. This is an increase from the 2004 survey, which had a PSD and PSD-28 of 6 and 0.

*Muskellunge.* A total of 12 muskellunge were collected in fyke-nets in 2016. Eight of these fish were considered adults ranging from 33.0 to 43.2 in and averaged 36.8 in (SD = 3.7). The 2016 catch and average size is similar to 2010 (Figure 6). Four juveniles were collected ranging from 9.1 to 11.4 in and likely survived from the fall 2015 stocking. The adult catch rate during April was 0.11 adult fish/net-night which is slightly lower than the first quartile for Class B muskellunge waters in Wisconsin of 0.15 fish/net-night (WDNR unpublished data).

*Black Crappie.* A total of 307 black crappie were collected in fyke-nets in 2016. They ranged in length from 4.9 to 13.0 and averaged 8.6 in (SD = 0.7) (Figure 7). Catch rates for black crappie

were 30.7/net-night. PSD and PSD-10 was 88 and 3. Aging structures were not collected on black crappie during this survey.

*Late-Spring Electrofishing*

*Largemouth Bass.* The 2016 largemouth bass population was estimated at 5.3 fish/acre (CV = 0.26) or 2,095 fish (largemouth bass ≥ 8 in). The population estimate is a decrease of 1.5 fish/acre from the previous estimate in 2013 (6.8 fish/acre). A total of 359 largemouth bass were collected during the population estimate ranging from 4.2 to 19.6 in (Figure 8). Average length in 2016 was 12.5 in (SD=1.6) which was similar to 2013 (12.8 in). The electrofishing catch rate was 36.8 fish/mile and decreased from 2013 (53.4 fish/mile), 2010 (54.7 fish/mile), and 2004 (44.9 fish/mile). PSD was 52 in 2016, a decrease from 2013 (87) and 2010 (62). PSD-15 was 19 which was an increase from 2013 (11) and 2010 (2). Age-2 to age-10 largemouth bass collected grew an average of 2.0 in (SD=1.3) less than the Northern Region average (Figure 9).

*Bluegill*. A total of 283 bluegill (204 measured) were collected during night electrofishing. Bluegill ranged from 1.9 – 7.9 in and averaged 5.6 in (SD=1.2) (Figure 10). This average is identical to 2013 (5.6 in) and a slight increase from 2010 (5.4 in). The catch rate for bluegill was 80.9 fish/mile, a decrease from 2013 (88.3 fish/mile) and similar to 2010 (83.7 fish/mile). PSD and PSD-7 were 44 and 12. Both values decreased from 2013 (PSD=48; PSD-7=25). Bluegill grew an average of 0.7 in under Northern Region average and mean length-at-age was comparable to 2013 (Figure 11).

*Other panfish*. Pumpkinseed, yellow perch, and rock bass were also collected during late-spring electrofishing. A total of 48 pumpkinseed were collected averaging 6.6 in (SD=0.8) and ranging from 3.6 in to 7.8 in. Eight yellow perch were collected that averaged 4.6 in (SD=2.1) and

ranged from 2.5 to 7.8 in. Five rock bass were collected that averaged 7.2 in (SD=1.6) and ranged from 5.5 to 9.7 in.

*Fall Electrofishing*

The catch rate of young-of-year (YOY) walleye was 2.3 fish/mile, exceeding the Ceded Territory average for stocked lakes of 0.7 fish/mile (Cichosz 2016) (Figure 12). Every survey that YOY walleye were collected correlated with a stocked year (Figure 12).

*Creel surveys*

Results for the 2016 ice creel survey are reported here and Table 4 (see Methods). The ice fishing projected pressure in 2016 was 2,471 hours or 6.3 hours/acre. Bluegills were the most pursued species (38%), followed by northern pike (28%), and black crappie (20%).

For comparison, the 1994 thru 2013 fishing season creel data is reported on Table 4 & 5. The total projected angling pressure has steadily decreased since 1997 (Table 4). Harvest levels have fluctuated with noticeable decreases in walleye harvest, increases in bass harvest, and other species oscillating since 1994 (Table 5).

## Discussion

Lipsett Lake offers opportunities for multiple gamefish species, but is primarily a largemouth bass, panfish, and northern pike fishery. The walleye have never been at high densities in the lake. A 1994 WDNR Treaty report estimated the walleye population at 0.4 fish/acre, which is similar to the 2016 estimate (0.3 fish/acre). Walleye remain in the lake because of stocking and immigration from Rice Lake and the Yellow River. The 2016 data demonstrates this fact in a few ways. First, there are very few examples of walleye being collected from non-stocked years suggesting stocking is the main source of walleye recruitment.

The walleye population has an unbalanced sex ratio. In general, there are always more male walleye than female walleye in a stable population (see ratios in Bass (2006)). However, Lipsett Lake has a 1:1 male to female ratio, which is more typical in a low density population. Last, the population has stayed under 1 fish/acre for all but one population estimate in the past 20 years. The 2016 data continues to support that the walleye fishery is a minor component of the overall fish community.

Poor walleye recruitment is the major reason the population remains low. Natural reproduction has not occurred since 1993, based on fall survey data. The fishery is completely reliant on stocking to maintain a walleye population. Lipsett Lake is currently only stocked with small fingerlings by the St. Croix tribe and those fish are the sole source of recruitment.

Northern pike are very common within Lipsett Lake and have remained stable since 2010. The catch rate of two fish/net night is similar to catch rates for northern pike in 1994 (2.9 fish/net-night) and 2004 (2.5 fish/net night). The size quality of northern pike has increased since 2004 with more fish over 21 and 28 inches in the lake. Increased harvest of largemouth bass (doubled from 2010 to 2013) may have benefited pike in the lake by freeing up prey resources.

Muskellunge have been stocked into Lipsett Lake since 2001. However, they were found in surveys prior to that year (Damman 2008). The goal set by Damman (2008) of 0.2 adult fish/acre by 2017 was not achieved. This season only eight adults were collected and ultimately the population estimate was cancelled due to low numbers of muskellunge sampled. The muskellunge catch rate was slightly under the accepted range for Class B waters (0.15 – 0.64 fish/net-night WDNR Muskellunge Management Plan) at 0.11 fish/net-night. This rate was

extremely close to the normal range for Class B waters (if we had caught two more adult muskellunge our catch rate would be within the normal range).

Movement of muskellunge stocked from Lipsett Lake into other nearby waterbodies is also possible. Lipsett is an open system that connects to Rice Lake and the Yellow River. Rice Lake is also connected to Benoit Lake and muskellunge can potentially move between all three waterbodies and the Yellow River. Muskellunge are known to readily move between lakes as has been documented in other stocked systems in Wisconsin (Weeks and Hansen 2009). This fact may impact the numbers that stay in Lipsett Lake if better prey/habitat is available in Benoit Lake, Rice Lake, or the Yellow River.

Black crappie are abundant in Lipsett Lake but overall size quality seems low with an average length around 8.6 in and few fish over 10 in. Four reasons could cause this scenario: 1) high levels of exploitation, 2) poor growth/stunting, 3) a strong year class, or 4) sampling gear bias. Crappie were the second most harvested fish and third most pursued in 2013 and 2016 creel surveys. Average length of harvest was near 10 inches in both creel surveys, indicating anglers were harvesting the larger fish. Unfortunately, we did not take aging from fish during the 2016 survey. Aging structures would have help explain a stunted population vs. a heavily harvested population by checking for slow growth. It is also possible that a strong year class created this scenario. Crappies are known to have periodic high recruitment events and Lipsett may have had a strong year class of young crappie. Last, sampling gear bias was a possibility for this survey. Larger black crappie were creeled than were captured in DNR fyke-nets during our brief time sampling last spring. This scenario has been well documented (Beard and Kampa 1999).

Largemouth bass numbers have decreased by 1.5 fish/acre since the last population estimate in 2013. This result suggests anglers are taking the opportunity to harvest bass with the no minimum length limit. Unfortunately, we did not gather creel information for the entire fishing season in 2016, so we cannot discuss changes in largemouth bass harvest. From 2010 to 2013, largemouth bass harvest increased by 40%. However, growth has not improved since the regulation change in 2012. It may take some time to see any significant increase in growth, since the regulation was only five years old during data collection.

Bluegill catch and size structure has remained stable in Lipsett. The overall average size and catch rates of bluegill have remained similar since 2010. Bluegill harvest has varied through time ranging from 4,699 to 14,413 harvested since 1994. This data suggests anglers are following strong year classes and fishing the lake more heavily when bigger bluegill are more abundant. Average size of harvested bluegill has varied little (7.2 – 7.8 in) since 1994. Larger bluegill (>7.0 in) were less abundant in the 2016 electrofishing sample. However, a large number of four to five-year-old bluegill will be available in a couple years based on this data.

## Management Recommendations

1) Walleye are extremely low density in Lipsett Lake. Sampling history has shown that having a large population or natural reproduction is not realistic based on very poor survival of stocked fish. WDNR should not stock walleye for this reason. All additional (private/tribal) walleye stockings should be evaluated for correct genetic strain due to connection to the Yellow River.

2) Northern pike densities are stable and size structure has improved. There are no regulation changes needed.

3) Muskellunge are low density in Lipsett Lake. However, they are near the Class B normal catch rates and provide an additional sportfish for anglers in Lipsett Lake. At this time, stocking

should be continued. If by 2027 the catch rates are no longer at/near Class B recommendations, the stocking should be reconsidered.

4) The current regulation of no minimum size limit on largemouth bass should continue. This regulation allows anglers to harvest bass at a higher rate. Evaluation of this regulation should take place in eight to ten years.

5) Bluegill and black crappie are abundant and provide a good option for anglers fishing Lipsett Lake. Large crappie (>10 in) and bluegill (>8 in) are not abundant at this time. Future surveys should monitor the impact of a liberalized bass limit on the bluegill/panfish population.

6) Prevention and monitoring of invasive species should continue in the lake and at access points. Establishment of future invasive species could be detrimental to this unique system.

7) Efforts to increase habitat complexity in Lipsett Lake should be strongly encouraged. Input of coarse woody debris, protection/promotion of aquatic vegetation, and maintenance or restoration of 35 foot vegetative buffers are some examples of work that can increase habitat complexity.

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Table 1. General Fishing Regulations for Lipsett Lake, Burnett County, Wisconsin, during 2017.

| Fish Species | Open Season | Daily Limit | Minimum Length (in) |
|---|---|---|---|
| Walleye | May 06-March 04 | 3 | 15-20 may be kept, with one fish >24 |
| Largemouth and Smallmouth Bass | May 06-March 04 | 5 | NONE |
| Muskellunge | May 27-November 30 | 1 | 40 |
| Northern Pike | May 06-March 04 | 5 | NONE |
| Panfish | Open Season Year Round | 25 | NONE |

Table 2. Adult walleye population estimates for Lipsett Lake, Burnett County, Wisconsin P.E. = population estimate, C.V. = Coefficient of Variation

| | 1994 | 1997 | 2004 | 2007 | 2010 | 2013 | 2016 |
|---|---|---|---|---|---|---|---|
| P.E. | 158 | 420 | 217 | 179 | 275 | 98 | 111 |
| C.V. | 0.39 | 0.08 | 0.08 | 0.07 | 0.13 | 0.26 | 0.19 |
| fish/acre | 0.4 | 1.1 | 0.6 | 0.5 | 0.7 | 0.2 | 0.3 |

Table 3. Catch rates for adult walleye using night electrofishing (EF) and fyke-nets by sampling year.

| | 1994 | 1997 | 2004 | 2007 | 2010 | 2013 | 2016 |
|---|---|---|---|---|---|---|---|
| Fyke-net | 1.6 | 8.3 | 3.3 | 2.7 | 1.6 | 1.8 | 1.1 |
| EF | 16.6 | 26.0 | 14.0 | 5.4 | 4.3 | 4.3 | 4.0 |

Table 4. Projected angler pressure (angler hours) and angler hours/acre during the past seven creel WDNR creel surveys for Lipsett Lake, Burnett County, Wisconsin.

| Fishing Season | 1994-1995 | 1997-1998 | 2004-2005 | 2007-2008 | 2010-2011 | 2013-2014 | 2016-2017 |
|---|---|---|---|---|---|---|---|
| Open Water | 2,996 | 11,701 | 9,952 | 8,119 | 8,389 | 8,981 | - |
| Ice | 4,420 | 4,060 | 3,766 | 4,396 | 2,355 | 1,095 | 2,471 |
| Total | 7,416 | 15,761 | 13,718 | 12,515 | 10,744 | 10,076 | - |
| Angler Hours/acre | 18.9 | 40.1 | 34.9 | 31.8 | 27.3 | 25.6 | - |

Table 5. Estimated harvest by species for the past six WDNR creel surveys (does not include 2016).

| Species | 1994-1995 | 1997-1998 | 2004-2005 | 2007-2008 | 2010-2011 | 2013-2014 |
|---|---|---|---|---|---|---|
| Walleye | 29 | 188 | 85 | 51 | 56 | 7 |
| Northern Pike | 520 | 621 | 375 | 416 | 360 | 257 |
| Muskellunge | 0 | 0 | 0 | 0 | 0 | 0 |
| Smallmouth Bass | 0 | 5 | 0 | 0 | 0 | 0 |
| Largemouth Bass | 139 | 386 | 159 | 373 | 373 | 622 |
| Bluegill | 5,831 | 12,426 | 9,592 | 14,413 | 4,699 | 8,015 |
| Pumpkinseed | 23 | 791 | 686 | 1,561 | 218 | 68 |
| Black Crappie | 1,113 | 3,502 | 708 | 3,515 | 1,671 | 2,373 |
| Yellow Perch | 0 | 57 | 132 | 126 | 18 | 44 |
| Rock Bass | 0 | 459 | 424 | 403 | 32 | 0 |

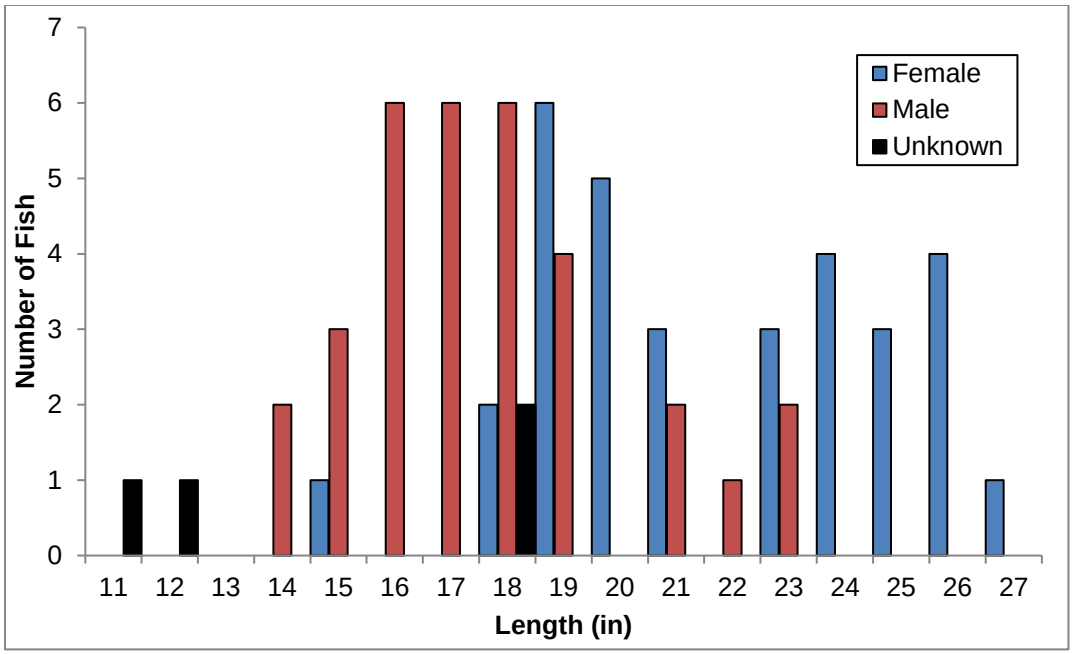


Figure 1. Length frequency of adult walleye captured during spring 2016 sampling in Lipsett Lake, Burnett County, Wisconsin.

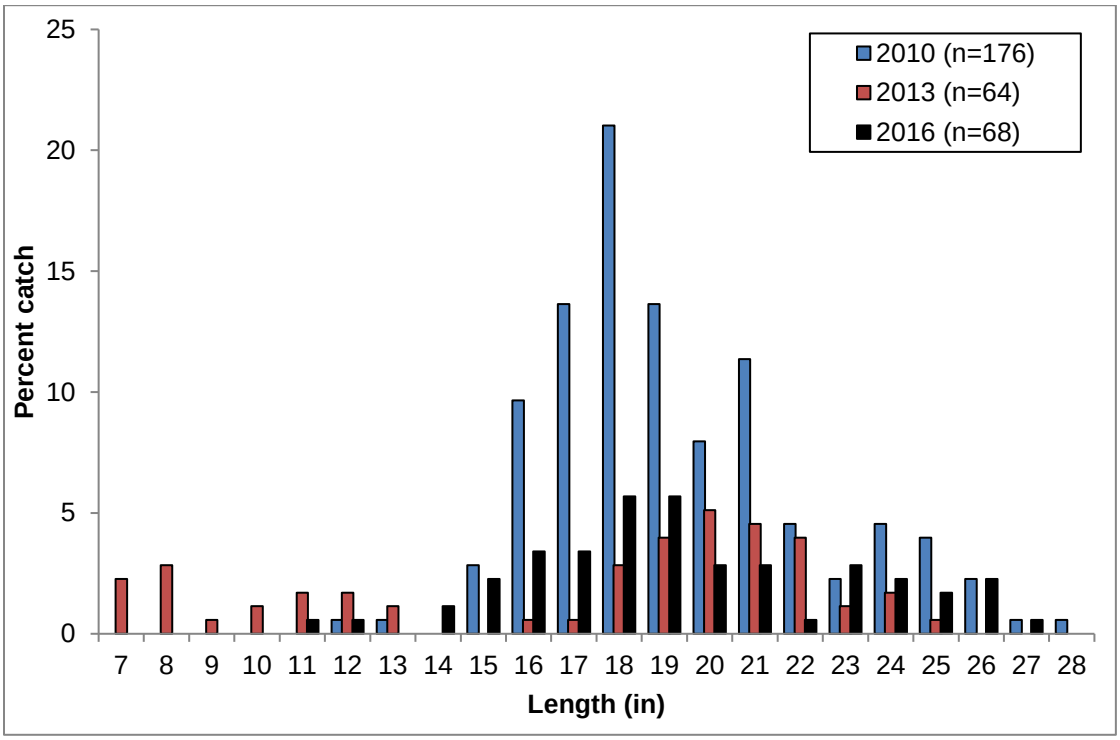


Figure 2. Relative length frequency of walleye captured in Lipsett Lake during 2010, 2013, and 2016 spring sampling.

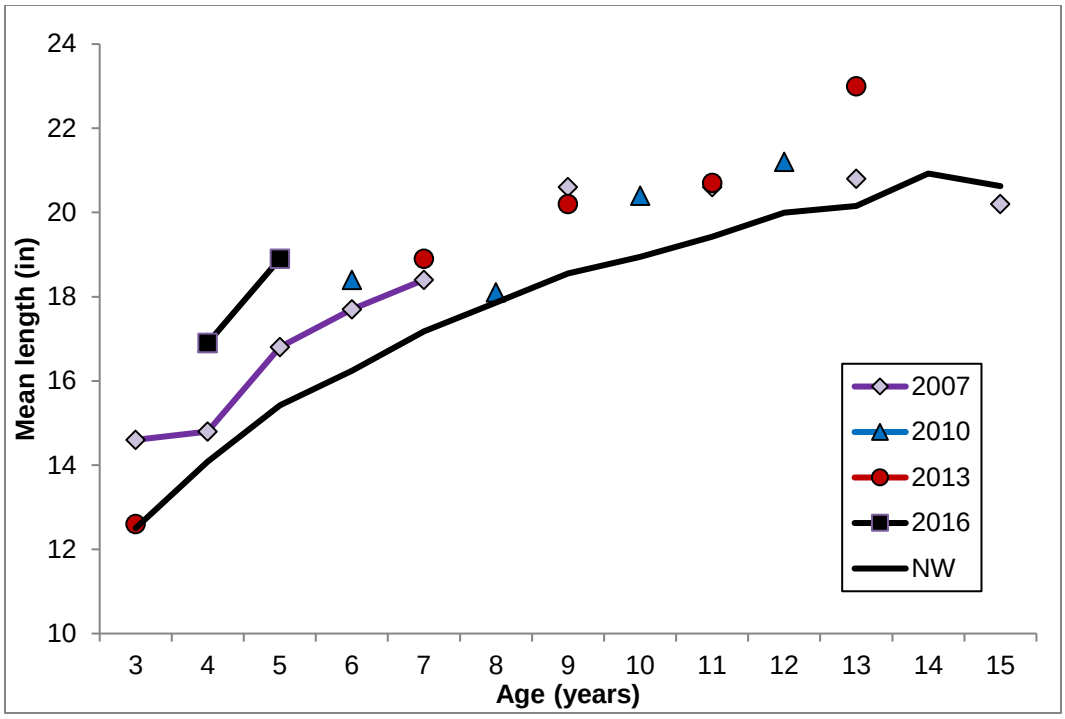


Figure 3. Mean length-at-age for male walleye captured in Lipsett Lake, Burnett County during 2007, 2010, 2013, and 2016. The black line (NW) represents Northwestern Wisconsin averages.

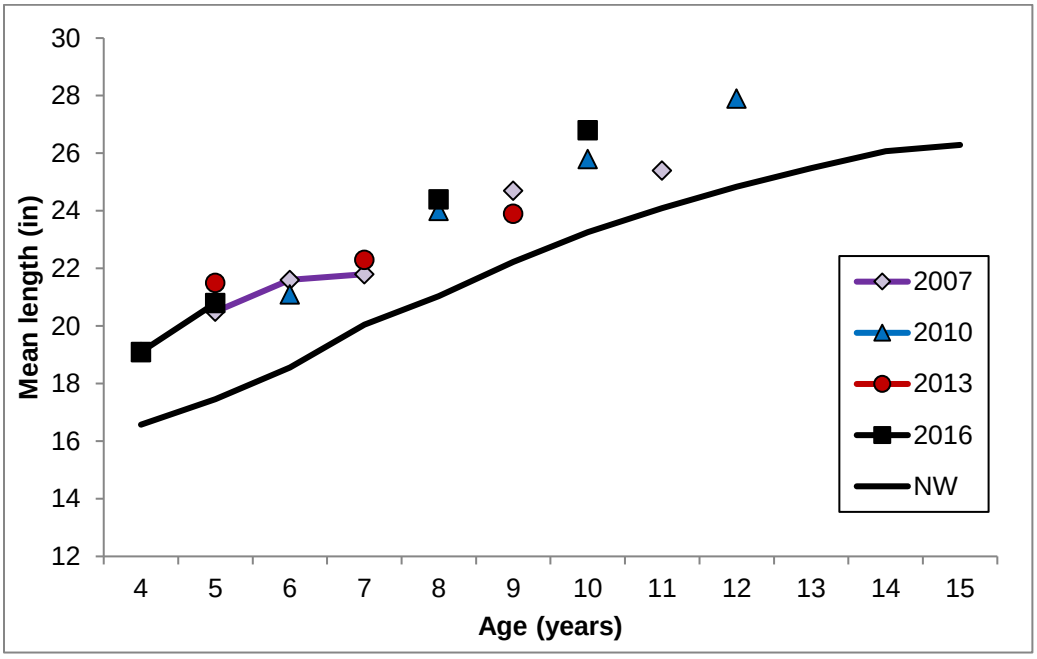


Figure 4. Mean length-at-age for female walleye captured in Lipsett Lake, Burnett County during 2007, 2010, 2013, and 2016 spring sampling. The black line (NW) represents Northwestern Wisconsin averages.

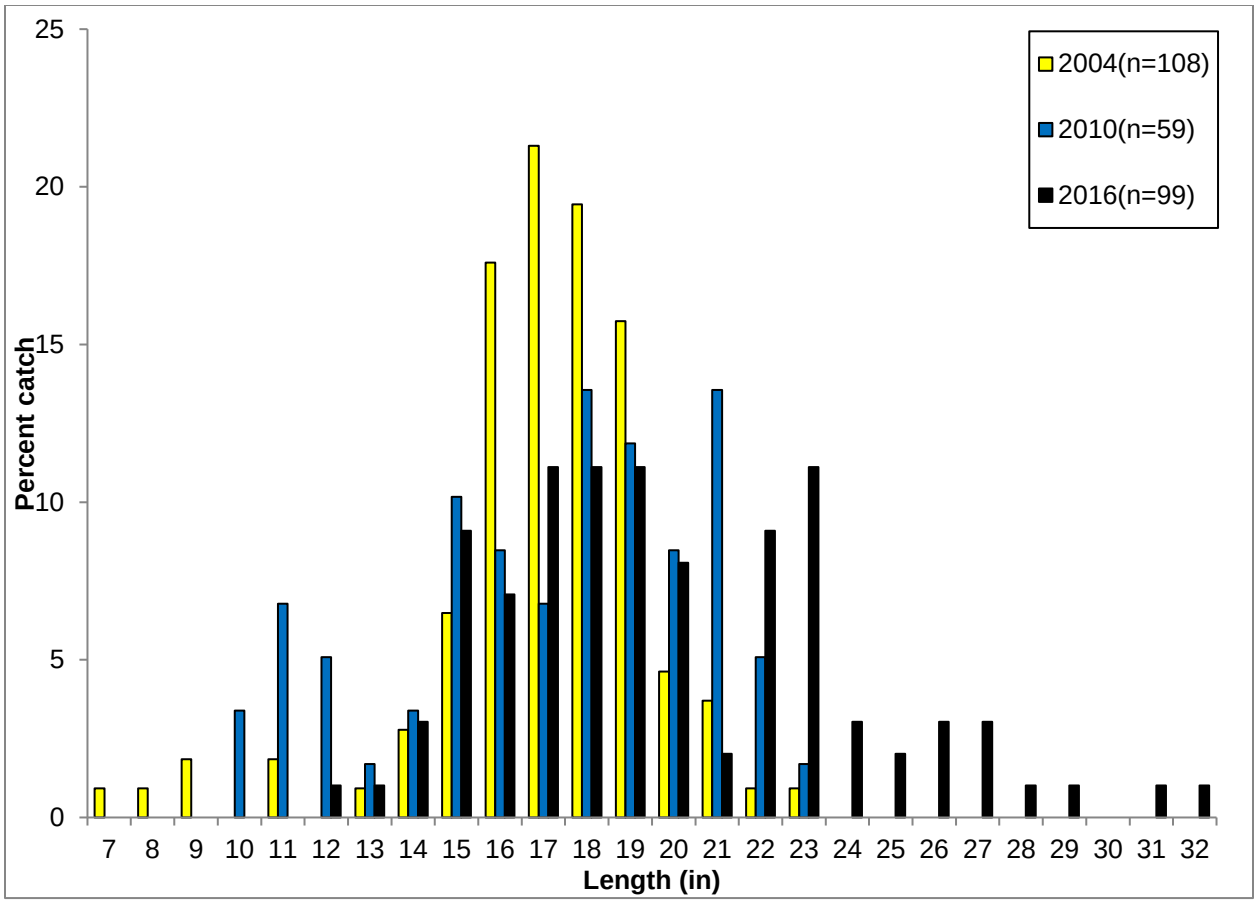

Figure 5. Relative length frequency of northern pike captured in Lipsett Lake during 2004, 2007, 2010, 2013, and 2016 using fyke-nets.

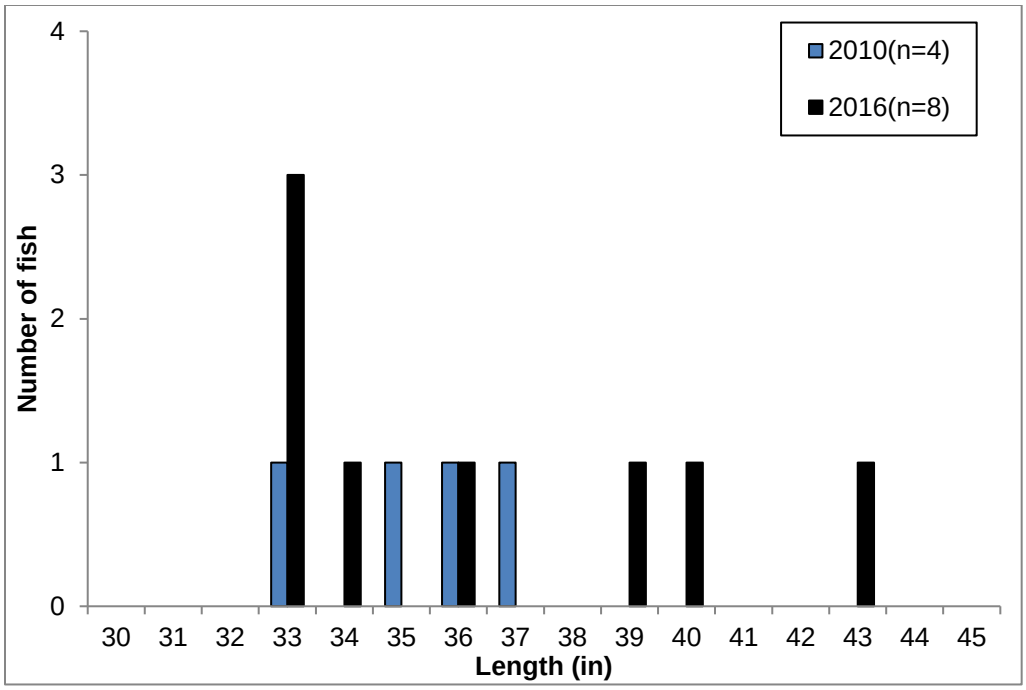

Figure 6. Length frequency of adult muskellunge captured in Lipsett Lake during 2010 and 2016 using fyke-nets.

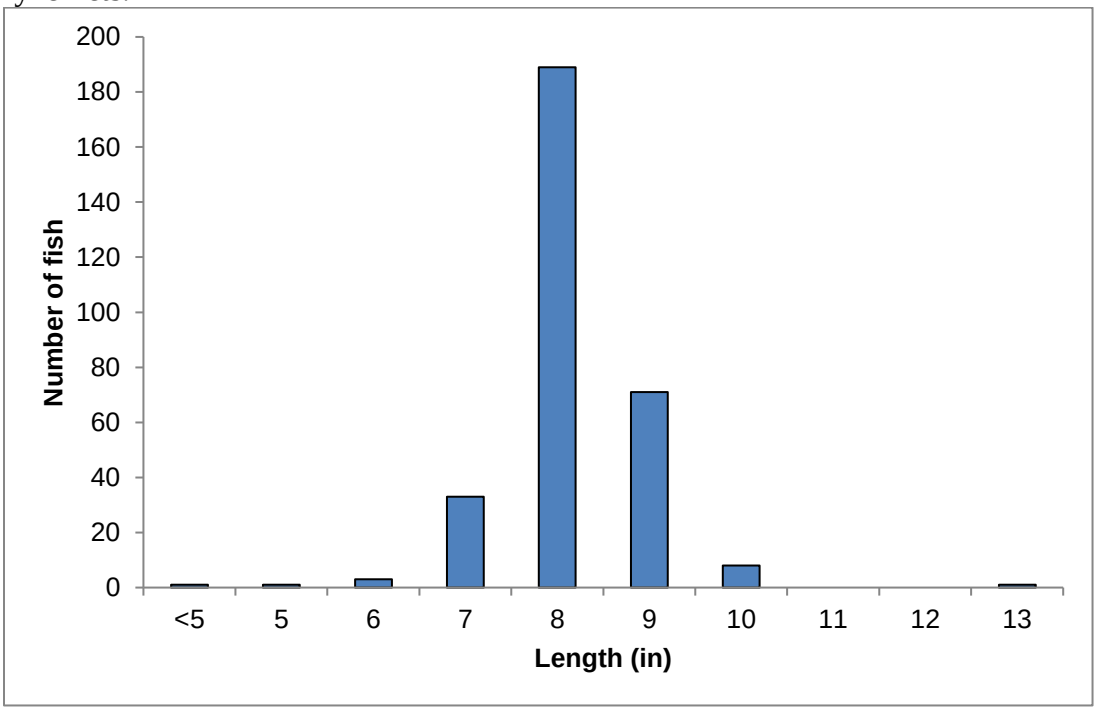

Figure 7. Length frequency of black crappie captured in fyke-nets during 2016 in Lipsett Lake, Burnett County, Wisconsin.

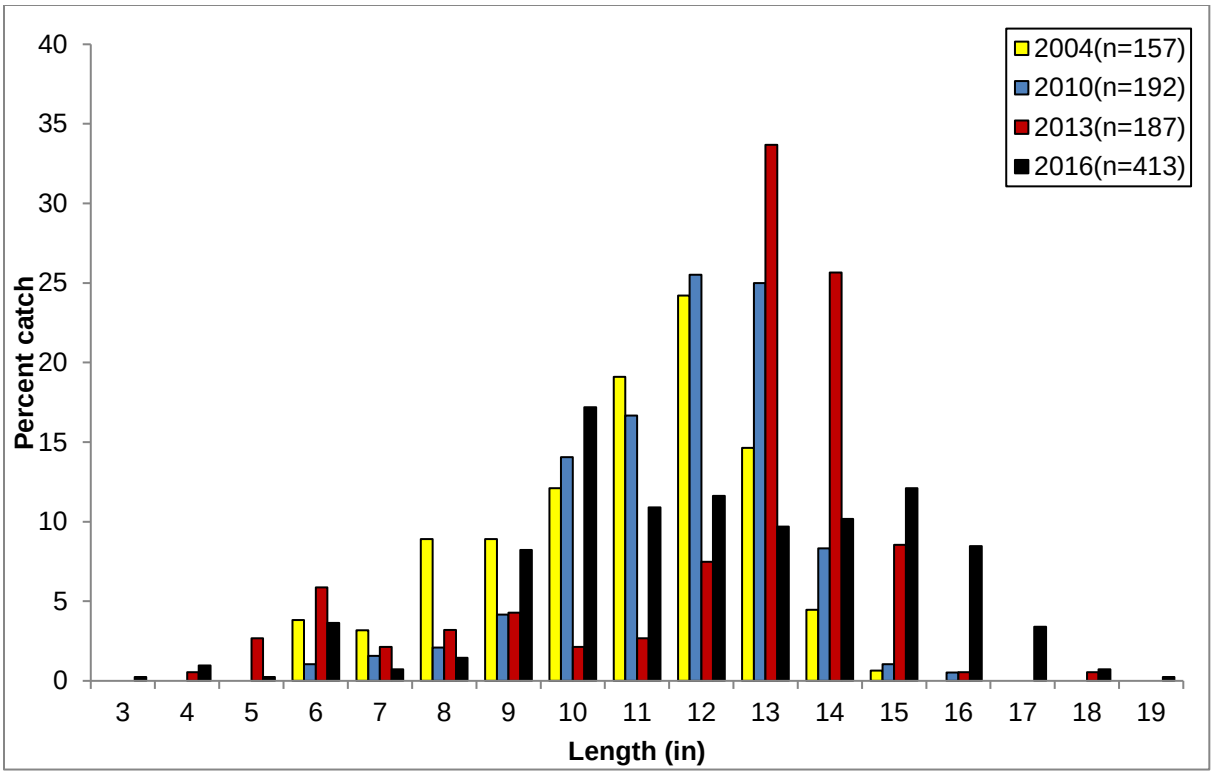


Figure 8. Relative length frequency of largemouth bass captured during 2004, 2010, 2013, and 2016 in Lipsett Lake, Burnett County, Wisconsin.

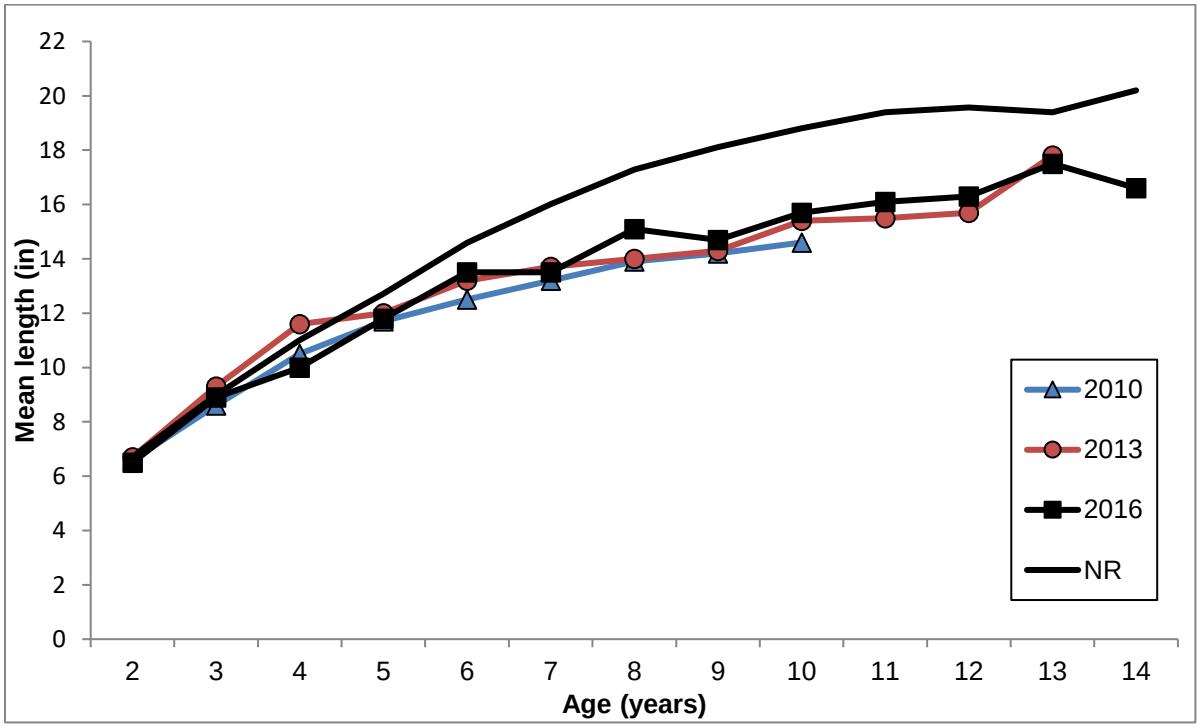


Figure 9. Mean length-at-age for largemouth bass in Lipsett Lake, Burnett County, Wisconsin compared with the Northern Region average (NR).

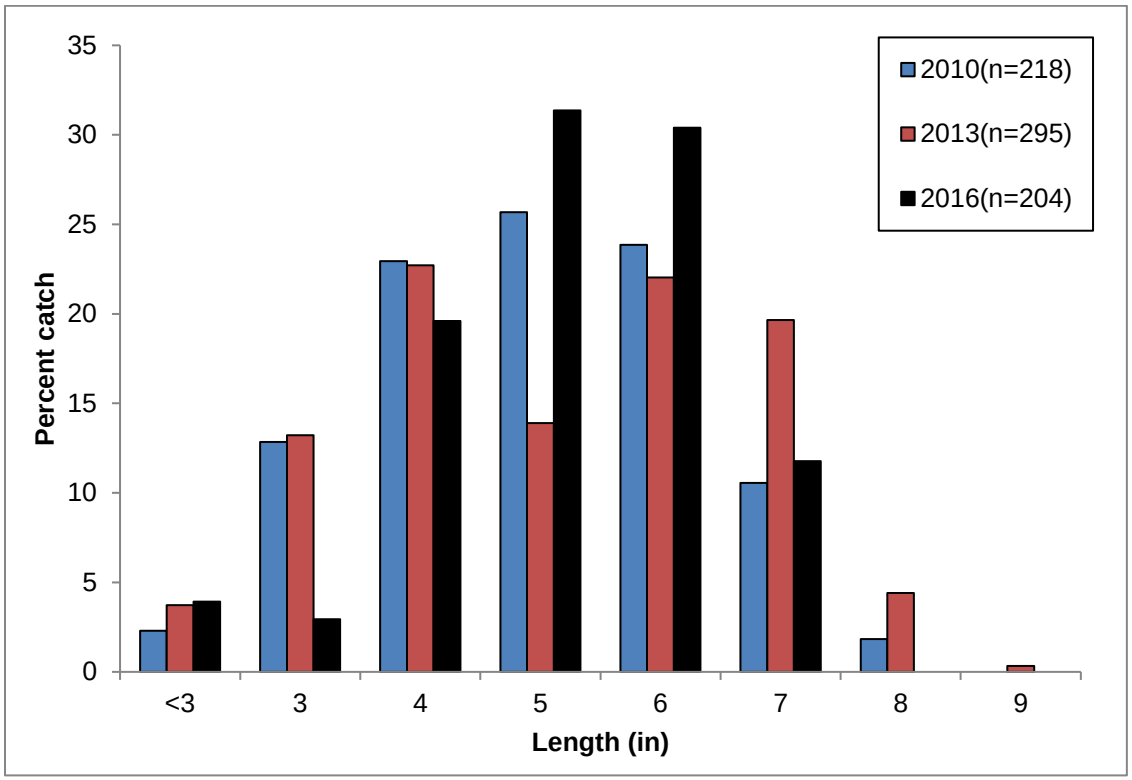


Figure 10. Relative length frequency of bluegill captured during 2010, 2013, and 2016 in Lipsett Lake, Burnett County, Wisconsin.

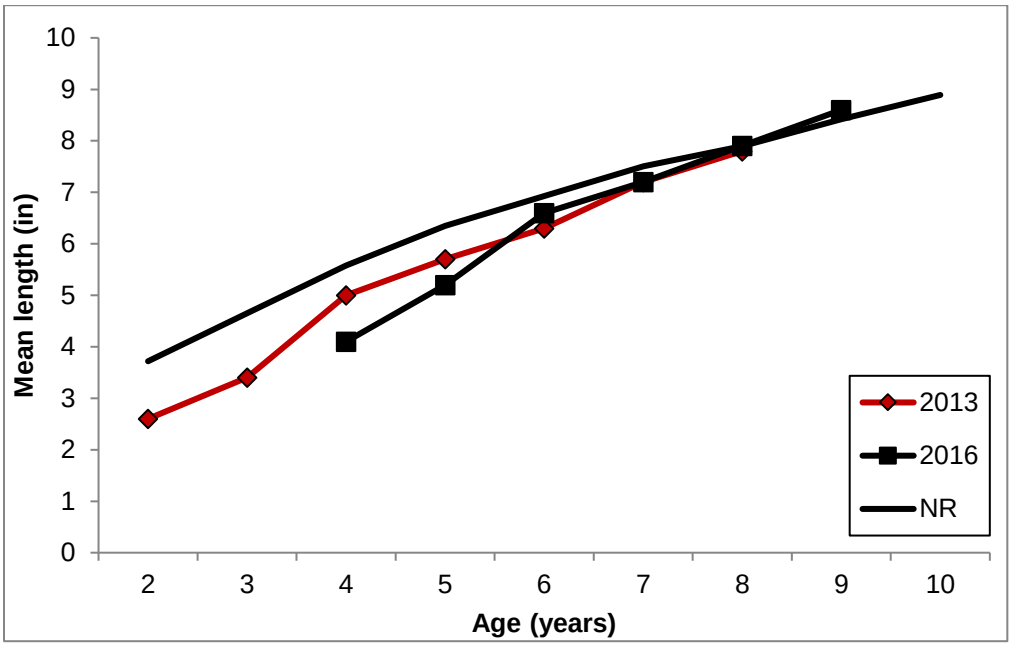


Figure 11. Mean length-at-age for bluegill in Lipsett Lake, Burnett County, Wisconsin compared with the Northern Region average (NR).

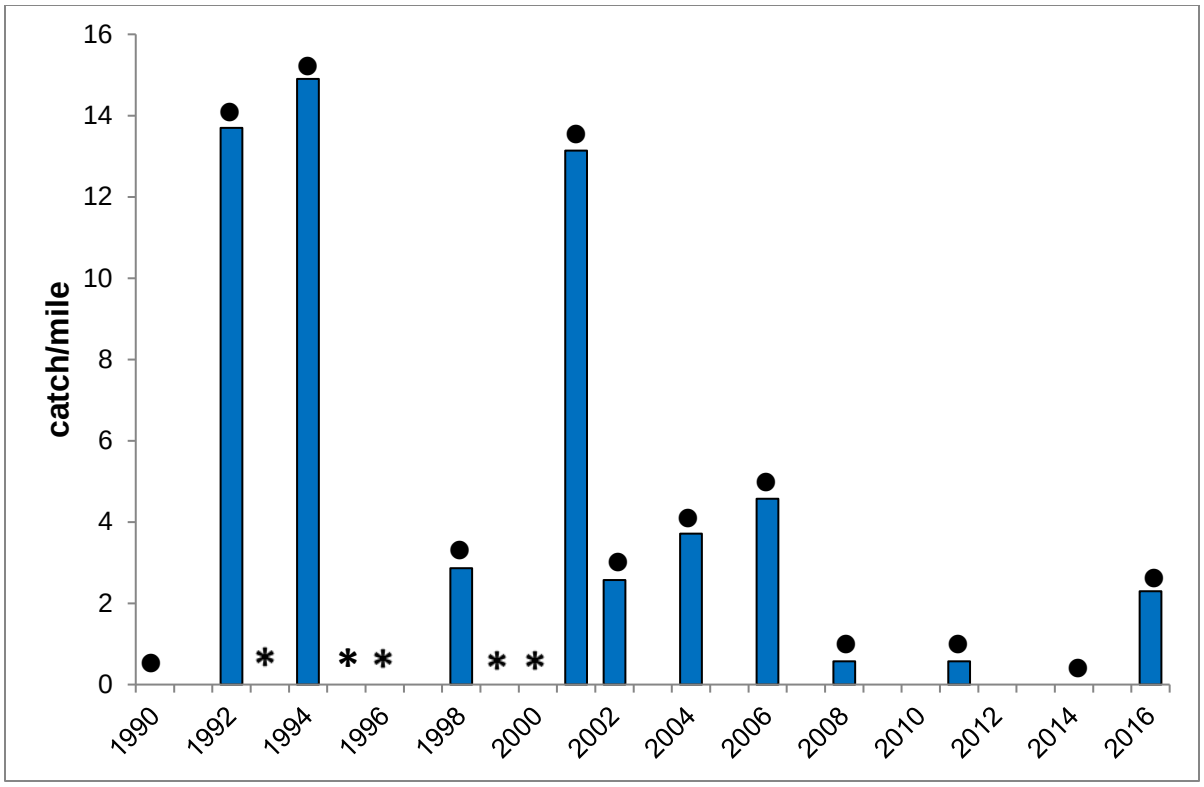


Figure 12. Young-of-year walleye relative abundances determined by fall electrofishing surveys in Lipsett Lake, Burnett County, Wisconsin. * -represents years without a fall survey. •-represents stocked year.

Appendix Table 1. Fish stocking records for Lipsett Lake, Burnett County, Wisconsin, since 1986.

| Year | Species | Number of Fish Stocked | Average length (in) | Source |
|---|---|---|---|---|
| 1986 | WALLEYE | 19,908 | 3.0 | DNR |
| 1989 | WALLEYE | 19,650 | 3.0 | DNR |
| 1990 | WALLEYE | 514 | 10.0 | DNR |
| 1991 | WALLEYE | 2,600 | 3.0 | DNR |
| 1991 | WALLEYE | 2,250 | 4.0 | DNR-FIELD TRANSFER |
| 1992 | WALLEYE | 24,786 | 3.7 | DNR |
| 1992 | WALLEYE | 7,662 | 2.4 | TRIBAL |
| 1994 | WALLEYE | 11,871 | 5.3 | DNR |
| 1996 | WALLEYE | 9,825 | 2.3 | DNR |
| 1996 | WALLEYE | 4,930 | 2.9 | TRIBAL |
| 1998 | WALLEYE | 20,970 | 1.4 | DNR |
| 2000 | WALLEYE | 19,650 | 1.6 | DNR |
| 2001 | WALLEYE | 16,035 | 2.4 | TRIBAL |
| 2001 | MUSKELLUNGE | 200 | 11.3 | DNR |
| 2002 | WALLEYE | 21,293 | 1.6 | DNR |
| 2004 | WALLEYE | 19,600 | 2.2 | DNR |
| 2004 | WALLEYE | 7,994 | 2.4 | TRIBAL |
| 2005 | MUSKELLUNGE | 157 | 12.3 | DNR |
| 2006 | WALLEYE | 13,749 | 1.7 | DNR |
| 2006 | WALLEYE | 24,086 | 2.2 | TRIBAL |
| 2007 | MUSKELLUNGE | 105 | 11.6 | DNR |
| 2008 | WALLEYE | 13,770 | 1.4 | DNR |
| 2009 | MUSKELLUNGE | 196 | 9.4 | DNR |
| 2011 | MUSKELLUNGE | 196 | 10.0 | DNR |
| 2011 | WALLEYE | 4,001 | 2.4 | TRIBAL |
| 2012 | WALLEYE | 1,965 | 7.5 | DNR |
| 2014 | WALLEYE | 13,945 | 2.1 | TRIBAL |
| 2015 | MUSKELLUNGE | 124 | 12.3 | DNR |
| 2016 | WALLEYE | 10,687 | 2.2 | TRIBAL |